



# STIC Search Report

## EIC 3700

STIC Database Tracking Number: 223777

**TO: Anitza M SanMiguel**  
**Location: RND 6d28**  
**Art Unit: 3733**  
**Monday, May 07, 2007**

**Case Serial Number: 10/821617**

**From: Ethel Leslie**  
**Location: EIC 3700**  
**RND 8A34**  
**Phone: 571-272-5992**

**Ethel.leslie@uspto.gov**

### Search Notes

Anitza,

Attached is the completed search for a spinal surgery instrument. I searched the inventors in the patent as well as non-patent literature and the results are included. I did an extensive search on the requested topic in a number of bibliographic and full-text databases as well as on the Internet. I found a couple of items that I think might help you – they are marked with yellow flags. Please be sure to look over all the results as there may be other items of interest. I have attached the search strategies used for the searches performed.

I hope you find this search helpful. If you have a moment, please fill out the attached STIC Feedback Form. And, if there is anything I can do to refine or revise this search, please let me know.

Sincerely,  
Ethel Leslie

RUSH

Access DB# 223777

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Anitza W. San Miguel Examiner #: 82768 Date: 5/3/2007  
Art Unit: 3733 Phone Number 30 2-3279 Serial Number: 19821, 617  
Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Temporary spinal fixation apparatuses and methods

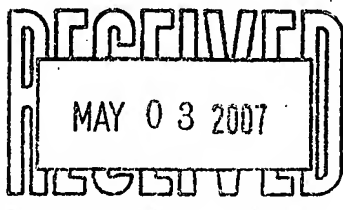
Inventors (please provide full names): Eric Gray and Paul Bochest

Earliest Priority Filing Date: 10/02/2000

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Spinal surgical instrument (claims 1-10)

- outer cannula having an engagement structure at the distal end.
- inner cannula axially movable w/in the outer lumen of the outer cannula.
- fixing member
- engagement structure of outer cannula engages a locking nut.
- distal end of inner lumen includes threads



*Please Rush!*  
EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER

\*\*\*\*\*

Set	Items	Description
S1	47467	S SPINE? OR SPINAL? OR VERTEBRA? OR INTERVERTEBRA? OR INTRAVERTEBRA?
S2	2025920	S CANNULA? OR CANULA? OR CYLINDER? OR TUBE? ? OR TUBULAR? OR TUBIFORM? OR (CYLINDRICAL? OR ELOGAT?)(3N)(MEMBER? ? OR ELEMENT? ? OR BODY OR BODIES)
S3	1013634	S (AXIAL? OR LONGITUD? OR LONG()AXIS)(3N)(MOVE? OR MOVING? OR MOVAB? OR MOBIL?) OR SLIDE? OR SLIDING? OR SLIDABL? OR TELESOP?
S4	1221110	S (FIXING? OR FIXAT?)(3N)(MEMBER? ? OR ELEMENT? ? OR SEGMENT? ? OR PIECE? ? OR DEVICE? ? OR APPARAT? OR COMPONENT? ?) OR SHAFT? ?
S5	365293	S PUSHER? OR DRIVER? OR (PUSH??? OR DRIV???) (3N)(ELEMENT? ? OR PIECE? ?)
S6	517360	S IC=(A61B? OR A61F? OR A61M?)
S7	247359	S S2(3N)(INNER OR INSIDE OR INTERIOR? OR WITHIN)
S8	138102	S S2(3N)(OUTER OR OUTSIDE OR EXTERIOR?)
S9	20	S S1 AND S3 AND S7 AND S8 AND S4:S5
S10	672239	S (ENGAG? OR ATTACH? OR SECURE? ? OR SECURING OR FASTEN? OR LOCK??? ) (3N) (MEMBER? ? OR ELEMENT? ? OR SEGMENT? ? OR PIECE? ? OR DEVICE? ? OR APPARAT? OR COMPONENT? ?)
S11	20	S S1 AND S3 AND S7 AND S8 AND S10
S12	16	S S11 NOT S9
S13	14	S S12 AND S6
S14	88	S S1 AND S3 AND S7:S8 AND (S4:S5 OR S10)
S15	10491	S S3(S)S7:S8(S)(S4:S5 OR S10)
S16	60	S S15 AND S1
S17	22	S (S16 NOT (S9 OR S13)) AND S6
S18	15	S (S14 NOT (S9 OR S13 OR S17)) AND S6
S19	1167	S S1(10N)S2
S20	73	S S19 AND S3 AND (S4:S5 OR S10)
S21	247586	S S3(S)(S4:S5 OR S10)
S22	56	S S19 AND S21
S23	35	S S22 NOT (S9 OR S13 OR S17 OR S18)
S24	20	S S23 AND S6
S25	106670	S S2(10N)S3
S26	123	S S1 AND S25 AND (S4:S5 OR S10)
S27	24215	S S25(S)(S4:S5 OR S10)
S28	98	S S1 AND S27
S29	11	S (S28 NOT (S9 OR S13 OR S17 OR S18 OR S24)) AND S6

; show files

[File 350] **Derwent WPIX** 1963-2007/UD=200729

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*\*File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit <http://www.dialog.com/dwpi/>.*

[File 347] **JAPIO** Dec 1976-2006/Dec(Updated 070403)

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9/5/1 (Item 1 from file: 350) [Links](#)

Derwent WPIX

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0015094733 *Drawing available*

WPI Acc no: 2005-444201/200545

Related WPI Acc No: 2004-417375

XRPX Acc No: N2005-360964

**Temporary spinal fixation apparatus for positioning spinal implant has fixing piece set within lumen of inner cannula and includes securing arrangement with threads for advancing and retracting fixing piece within same inner lumen**

Patent Assignee: SULZER SPINE-TECH LTD (SULZ)

Inventor: BOSCHERT P F; GRAY E L

Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050137593	A1	20050623	US 2000676622	A	20001002	200545	B
			US 2004821617	A	20040409		

Priority Applications (no., kind, date): US 2000676622 A 20001002; US 2004821617 A 20040409

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050137593	A1	EN	15	11	Continuation of application	US 2000676622
					Continuation of patent	US 6743231

**Alerting Abstract US A1**

**NOVELTY** - An **inner cannula** (40) is **axially movable** within the outer lumen (21) of the **outer cannula** (20). A **fixing piece** (60) is positioned within the inner lumen of the **inner cannula** and includes a securing arrangement (70) with threads (61) for advancing and retracting the **fixing piece** within the same inner lumen.

**USE** - For temporary fixation of the **spinal** implant assemblies until a permanent fixation position is determined.

**ADVANTAGE** - Reduces the number of steps needed to perform **spinal** surgery and can decrease the likelihood of post-operative complications.

**DESCRIPTION OF DRAWINGS** - The figure shows an exploded perspective view of the low profile version of the temporary fixation device.

**20 Outer cannula**

**21 Outer lumen**

**40 Inner cannula**

**60 Fixing piece**

**61 Threads**

**70 Securing arrangement**

**Title Terms /Index Terms/Additional Words:** TEMPORARY; SPINE; FIX; APPARATUS; POSITION;

IMPLANT; PIECE; SET; LUMEN; INNER; CANNULA; SECURE; ARRANGE; THREAD; ADVANCE; RETRACT

# Class Codes

## International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

US Classification, Issued: 606061000

File Segment: EngPI; ;  
DWPI Class: P31

9/5/5 (Item 5 from file: 350) [Links](#)

Derwent WPIX

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0012905042 *Drawing available*

WPI Acc no: 2002-180004/200223

Related WPI Acc No: 2000-162980; 2002-113413; 2003-402774; 2004-248340; 2004-347769; 2004-449477; 2004-813746; 2005-111972; 2005-141754; 2005-366041; 2007-149226; 2007-149227; 2007-198945

XRPX Acc No: N2002-136819

**Fixing of vertebrae through a cannula method uses a two-part cannula that may be expanded inside the body to give a conical open end to allow access for instruments and/or endoscope to fix a pair of vertebra**

Patent Assignee: DAVISON T W (DAVI-I); ENDIUS INC (ENDI-N); SHER A (SHER-I); TAYLOR T E (TAYL-I)

Inventor: DAVISON T W; SHER A; TAYLOR T E

## Patent Family ( 24 patents, 94 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2002009801	A1	20020207	WO 2001US23999	A	20010731	200223	B
US 20010011170	A1	20010802	US 1998137335	A	19980820	200223	E
			US 2001772605	A	20010130		
AU 200179112	A	20020213	AU 200179112	A	20010731	200238	E
US 6530926	B1	20030311	US 2000630077	A	20000801	200321	E
EP 1305077	A1	20030502	EP 2001957359	A	20010731	200331	E
			WO 2001US23999	A	20010731		
US 20030195493	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		
			US 2003439385	A	20030516		
US 20030195549	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		

			US 2003439979	A	20030516		
US 20030195550	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		
			US 2003440231	A	20030516		
US 20030195551	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		
			US 2003441319	A	20030516		
US 20030199884	A1	20031023	US 1998137335	A	19980820	200370	E
			US 2001772605	A	20010130		
			US 2003435730	A	20030509		
US 20030199885	A1	20031023	US 1998137335	A	19980820	200370	E
			US 2001772605	A	20010130		
			US 2003440278	A	20030516		
JP 2004504893	W	20040219	WO 2001US23999	A	20010731	200414	E
			JP 2002515352	A	20010731		
US 20040078051	A1	20040422	US 1998137335	A	19980820	200428	E
			US 2001772605	A	20010205		
			US 2003685761	A	20031015		
US 20040093002	A1	20040513	US 1998137335	A	19980820	200432	E
			US 2001772605	A	20010130		
			US 2003440002	A	20030516		
US 20040098012	A1	20040520	US 1998137335	A	19980820	200434	E
			US 2001772605	A	20010130		
			US 2003713820	A	20031114		
US 6800084	B2	20041005	US 1998137335	A	19980820	200465	E
			US 2001772605	A	20010130		
US 6811558	B2	20041102	US 1998137335	A	19980820	200472	E
			US 2001772605	A	20010130		
			US 2003435730	A	20030509		
US 6837891	B2	20050104	US 1998137335	A	19980820	200503	E
			US 2001772605	A	20010130		
			US 2003439385	A	20030516		
US 20050043754	A1	20050224	US 1998137335	A	19980820	200515	E
			US 2001772605	A	20010130		
			US 2003435730	A	20030509		
			US 2004958505	A	20041005		
US 7001397	B2	20060221	US 1998137335	A	19980820	200615	E
			US 2001772605	A	20010130		
			US 2003440002	A	20030516		
US 7033369	B2	20060425	US 1998137335	A	19980820	200628	E
			US 2001772605	A	20010130		
			US 2003439979	A	20030516		

US 20060089662	A1	20060427	US 1998137335	A	19980820	200629	E
			US 2000630077	A	20000801		
			US 2001772605	A	20010130		
			WO 2001US23999	A	20010731		
			US 2004514797	A	20041118		
US 7108705	B2	20060919	US 1998137335	A	19980820	200662	E
			US 2001772605	A	20010130		
			US 2003440278	A	20030516		
US 20060264999	A1	20061123	US 1998137335	A	19980820	200678	E
			US 2001772605	A	20010130		
			US 2003440278	A	20030516		
			US 2006417616	A	20060503		

Priority Applications (no., kind, date): US 1998137335 A 19980820; US 2000630077 A 20000801; US 2001772605 A 20010130; US 2001772605 A 20010205; US 2003435730 A 20030509; US 2003439385 A 20030516; US 2003439979 A 20030516; US 2003440002 A 20030516; US 2003440231 A 20030516; US 2003440278 A 20030516; US 2003441319 A 20030516; US 2003685761 A 20031015; US 2003713820 A 20031114; US 2004958505 A 20041005; US 2004514797 A 20041118; US 2006417616 A 20060503

#### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2002009801	A1	EN	117	41		
National Designated States, Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States, Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
US 20010011170	A1	EN			C-I-P of application	US 1998137335
					C-I-P of patent	US 6187000
AU 200179112	A	EN			Based on OPI patent	WO 2002009801
EP 1305077	A1	EN			PCT Application	WO 2001US23999
					Based on OPI patent	WO 2002009801
Regional Designated States, Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 20030195493	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20030195549	A1	EN			C-I-P of application	US 1998137335

				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 20030195550	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 20030195551	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 20030199884	A1	EN		C-I-P of application	US 1998137335
				Division of application	US 2001772605
				C-I-P of patent	US 6187000
US 20030199885	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
JP 2004504893	W	JA	148	PCT Application	WO 2001US23999
				Based on OPI patent	WO 2002009801
US 20040078051	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 20040093002	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 20040098012	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 6800084	B2	EN		C-I-P of application	US 1998137335
				C-I-P of patent	US 6187000
US 6811558	B2	EN		C-I-P of application	US 1998137335
				Division of application	US 2001772605
				C-I-P of patent	US 6187000
US 6837891	B2	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
US 20050043754	A1	EN		C-I-P of application	US 1998137335
				Division of application	US 2001772605
				Division of application	US 2003435730
				C-I-P of patent	US 6187000
				Division of patent	US 6800084
				Division of patent	US 6811558
US 7001397	B2	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000



				Continuation of patent	US 6800084
US 7033369	B2	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
				Continuation of patent	US 6800084
US 20060089662	A1	EN		C-I-P of application	US 1998137335
				C-I-P of application	US 2000630077
				C-I-P of application	US 2001772605
				PCT Application	WO 2001US23999
				C-I-P of patent	US 6187000
				C-I-P of patent	US 6530926
				C-I-P of patent	US 6800084
US 7108705	B2	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				C-I-P of patent	US 6187000
				Continuation of patent	US 6800084
US 20060264999	A1	EN		C-I-P of application	US 1998137335
				Continuation of application	US 2001772605
				Continuation of application	US 2003440278
				C-I-P of patent	US 6187000
				Continuation of patent	US 6800084
				Continuation of patent	US 7108705

#### Alerting Abstract WO A1

NOVELTY - The cannula has a thicker walled tubular part (20) that is attached by a single pivot (66) to a rolled sheet (12) that can be expanded to form an open-ended cone. The sheet has a guide pin (92) connected between the edge of the sheet and **sliding** in a curved guide slot (80) extending from the opposite edge. The cannula sections may be covered during insertion with a sheath (100) removed by a pull-string (104). The cone may be expanded by insertion of a tool (116)

DESCRIPTION - INDEPENDENT CLAIMS are also included for

- A. The method of installing the cannula including overlap of the two cannula parts
- B. The method using cannula that are radiolucent and have non-reflective inner coating
- C. The method using a cannula the expands to form a cone
- D. The method to make fixings to the **vertebrae** using a two part cannula

USE - To fix **vertebrae** together

ADVANTAGE - The operation can be carried out through the cannula thus avoiding more invasive open surgery

DESCRIPTION OF DRAWINGS - Exploded view of cannula and expansion tool

12 Expanding end of cannula

66 Pivot

80 Expansion guide slot

92 Expansion guide pin

100 Insertion sheath  
 104 Pull string  
 116 Expansion tool

**Title Terms /Index Terms/Additional Words:** FIX; VERTEBRA; THROUGH; CANNULA; METHOD; TWO; PART; EXPAND; BODY; CONICAL; OPEN; END; ALLOW; ACCESS; INSTRUMENT; ENDOSCOPE; PAIR

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/12; A61B-017/56; A61M-029/00			Main		"Version 7"
A61B-0017/00	A	I	F	B	20060101
A61B-0017/00	A	I	F	R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/02	A	I		R	20060101
A61B-0017/02	A	N		R	20060101
A61B-0017/17	A	I		R	20060101
A61B-0017/28	A	N		R	20060101
A61B-0017/32	A	N		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/56	A	I	F	R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0019/00	A	I	L	R	20060101
A61F-0011/00	A	I	F	B	20060101
A61M-0029/00	A	I	F	B	20060101
A61B-0017/00	C	I	L	B	20060101
A61B-0017/00	C	I	L	R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/02	C	I		R	20060101
A61B-0017/02	C	N		R	20060101
A61B-0017/16	C	I		R	20060101
A61B-0017/28	C	N		R	20060101
A61B-0017/32	C	N		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0019/00	C	I	F	R	20060101
A61F-0011/00	C	I	L	B	20060101
A61M-0029/00	C	I	F	B	20060101

US Classification, Issued: 604500000, 604239000, 604158000, 606001000, 606198000, 606198000, 606198000 ,

606108000, 606108000, 606191000, 606190000, 606190000, 606198000, 606198000, 606198000, 606198000, 606061000, 606073000, 604264000, 606198000, 604264000, 606190000, 604104000, 606108000, 604164050, 606108000, 604264000, 606108000, 604104000, 606198000, 128898000

File Segment: EngPI; ;  
DWPI Class: P31; P32; P34

9/5/6 (Item 6 from file: 350) [Links](#)

Derwent WPIX

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0010167049 *Drawing available*

WPI Acc no: 2000-476275/200042

XRPX Acc No: N2000-355328

**Bone joining implant has tubular body with open leading end communicating with central aperture to entrap bone projection from vertebral column, and leading end portion extending from leading edge to oblique outer surface**

Patent Assignee: BAGBY FAMILY TRUST LLC G W (BAGB-N); BAGBY G W (BAGB-I)

Inventor: BAGBY G W

Patent Family ( 6 patents, 2 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
CA 2287020	A1	20000427	CA 2287020	A	19991021	200042	B
US 6371986	B1	20020416	US 1998179920	A	19981027	200232	E
US 20020055782	A1	20020509	US 1998179920	A	19981027	200235	E
			US 200139384	A	20011231		
US 6689167	B2	20040210	US 1998179920	A	19981027	200413	E
			US 200139384	A	20011231		
US 20040158327	A1	20040812	US 1998179920	A	19981027	200454	E
			US 200139384	A	20011231		
			US 2004775837	A	20040209		
US 20060004370	A1	20060105	US 1998179920	A	19981027	200605	E
			US 200139384	A	20011231		
			US 2004775837	A	20040209		
			US 2005224412	A	20050910		

Priority Applications (no., kind, date): US 2005224412 A 20050910; US 2004775837 A 20040209; US 200139384 A 20011231; US 1998179920 A 19981027

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes

CA 2287020	A1	EN	46	27		
US 20020055782	A1	EN			Division of application	US 1998179920
US 6689167	B2	EN			Division of application	US 1998179920
					Division of patent	US 6371986
US 20040158327	A1	EN			Division of application	US 1998179920
					Continuation of application	US 200139384
					Division of patent	US 6371986
					Continuation of patent	US 6689167
US 20060004370	A1	EN			Division of application	US 1998179920
					Continuation of application	US 200139384
					Continuation of application	US 2004775837
					Division of patent	US 6371986
					Continuation of patent	US 6689167

### Alerting Abstract CA A1

**NOVELTY** - The implant (10) has a tubular body with an open leading end (96) and a similarly sized central aperture communicating with each other and entrapping bone projection from a pair of joined together **vertebral** bodies (12, 14) in a **vertebral** column (16). The tubular body has a tapered leading end portion (104) extending from a cylindrical leading edge (86) to an oblique outer surface (90). Retaining tabs (116) on the outer surface retains the implant between the **vertebral** bone bodies.

**DESCRIPTION - INDEPENDENT CLAIMS** are included for a **vertebral** interbody implant, and a method for joining together **vertebral** bodies.

**USE** - For instant fixation, distraction, and staged bone fusion of bone bodies, such as **spinal vertebrae** so as to stabilize and prevent relative motion often resulting from a degenerative disc condition. For the lumbar, thoracic and cervical **spine**. Usable in a bone fracture or osteotomy to fuse together resulting bone bodies, and across one or more joints or articulations.

**ADVANTAGE** - Instantly fastens bone bodies together upon implantation, enhances arthrodesis by encouraging bony fusion adjacent the implant, and imparts distraction between adjacent bone bodies during insertion. Facilitates stage stabilization leading to bone fusion, in a manner that is relatively simple, more reliable, less complicated, has fewer parts, and leads to a quicker and more thorough bone fusion and remodeling between them. The final stage of bone fusion through and around the implant eliminates any need for the implant to maintain the fusion, thus allowing the bone union to provide primary support between them.

**DESCRIPTION OF DRAWINGS** - The figure shows a **vertebral** structure showing a vertical interbody implant, and a perspective view of the **vertebral** body implant for insertion within prepared bone beds.

10 Bone joining implant

12, 14 **Vertebral** bodies

16 **Vertebral** column

86 Cylindrical leading edge of implant tubular body

90 Oblique **outer** surface of implant **tubular** body

96 Open leading end of implant tubular body

104 Tapered leading end portion of implant tubular body

116 Retaining tabs

**Title Terms /Index Terms/Additional Words:** BONE; JOIN; IMPLANT; TUBE; BODY; OPEN; LEADING; END;

COMMUNICATE; CENTRAL; APERTURE; ENTRAP; PROJECT; VERTEBRA; COLUMN; PORTION;  
EXTEND; EDGE; OBLIQUE; OUTER; SURFACE

# Class Codes

## International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/00	A	I	F	B	20060101
A61B-0017/02	A	N		R	20060101
A61B-0017/16	A	I		R	20060101
A61B-0017/17	A	I		R	20060101
A61F-0002/00	A	N		R	20060101
A61F-0002/28	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/02	C	N		R	20060101
A61B-0017/16	C	I		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/28	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 623017110, 623017160, 623017160, 623017110, 606079000, 623017110, 623017110

File Segment: EngPI; ;  
DWPI Class: P31; P32

9/5/10 (Item 10 from file: 350) [Links](#)

Derwent WPIX

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0009005032 *Drawing available*

WPI Acc no: 1998-560991/199848

XRPX Acc No: N1998-437396

**Installation device for e.g. centrum fixing tool - has outer cylinder body that enables clamping and removal of clamping section to centrum fixing tool which is fixed to centrum of spine through opening**

Patent Assignee: MIZUHO IRYO KOGYO KK (MIZU-N)

Inventor: OTANI T

Patent Number	Kind	Date	Patent Family ( 1 patents, 1 countries)	Kind	Date	Update	Type
			Application				

			Number				
JP 10248855	A	19980922	JP 199756204	A	19970311	199848	B

Priority Applications (no., kind, date): JP 199756204 A 19970311

Patent Details					
Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
JP 10248855	A	JA	6	6	

#### Alerting Abstract JP A

The device (2) has a centrum fixing tool holding section (6) that is provided at the end of an **inner cylinder** body (7). A spheroidal clamping section (8), for clamping a centrum fixing tool (9), is arranged in the centrum fixing tool holding section.

An **outer cylinder** body (5) covers the **inner cylinder** body, along the **axial** direction, and **moves** the spheroidal clamping section to a radial direction. The **outer cylinder** body enables the clamping and removal of the spheroidal clamping section to the centrum fixing tool. The centrum fixing tool, held in the centrum fixing tool holding section, is fixed to the centrum of a **spine** through an opening.

USE - For correcting twist and deflection of centrum of patient with scoliosis.

ADVANTAGE - Enables **fixing spine** correction **apparatus** to centrum of **spine** from outside of human body.

**Title Terms** /Index Terms/Additional Words: INSTALLATION; DEVICE; FIX; TOOL; OUTER; CYLINDER; BODY; ENABLE; CLAMP; REMOVE; SECTION; **SPINE**; THROUGH; OPEN

#### Class Codes

International Patent Classification					
IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56			Main		"Version 7"

File Segment: EngPI; ;

DWPI Class: P31

9/5/11 (Item 11 from file: 350) [Links](#)

Derwent WPIX

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0008768078 *Drawing available*

WPI Acc no: 1998-311242/199827

Related WPI Acc No: 2000-672290

XRPX Acc No: N1998-244035

**Mechanical cross-link for use with dual-rod orthopaedic implant - has pair of rod hooking elements whose**

**coupling ends are slidably engaged by insertion of one into receiving socket of other**

Patent Assignee: FASTENETIX LLC (FAST-N)

Inventor: ERRICO J P

Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5752955	A	19980519	US 1995549977	A	19951030	199827	B

Priority Applications (no., kind, date): US 1995549977 A 19951030

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 5752955	A	EN	11	9	

**Alerting Abstract US A**

The compression locking variable length cross-link device has a pair of rod hooking elements (100,130), each having rod securing and coupling ends. The coupling ends are **slidably** engaging by the insertion of one into the receiving socket of the other and for selective locking to one another independent of the relative separation of the rod securing ends. Each hooking element has a curvate end (102,132) formed from flat material which has been shaped into a hook conformation to cup the lateral outside surface of a corresponding rod. A set screw positioned through a hole in the top of the curved end locks the curvate end to the rod. In one embodiment, one (a first) rod hooking element has a uniform cylindrical portion which may also include a knurled surface. The corresponding (second) element has a tubular portion including an axial receiving volume having an opening into which the cylindrical portion of the first element may be **slidably** inserted. The **exterior** surface of the **tubular** portion of the second element includes a slotted, threaded and tapered tip which is wider at the end thereof.

A nut may be engaged on the threads of the tubular portion and advanced onto the tapered portion to cause the slots to narrow, crush locking the surfaces of the inner volume and the **shaft** together, thereby securing the two elements at a specific separation. Set screws may then be utilized to compress and lock the rods to the curvate rod securing ends of each element.

USE - For use on **spinal** column.

ADVANTAGE - Less bulky to give greater area for bone grafting. More easily locked by surgeon. Rod gripping portions spread can be varied in-situ, enhanced rotational stability.

**Title Terms** /Index Terms/Additional Words: MECHANICAL; CROSS; LINK; DUAL; ROD; ORTHOPAEDIC; IMPLANT; PAIR; HOOK; ELEMENT; COUPLE; END; **SLIDE**; ENGAGE; INSERT; ONE; RECEIVE; SOCKET

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000, 606072000

File Segment: EngPI; ;  
DWPI Class: P31

9/5/13 (Item 13 from file: 350) [Links](#)

Derwent WPIX

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0008410960 *Drawing available*

WPI Acc no: 1997-528177/199749

XRPX Acc No: N1997-439930

**Guide device for intervertebral implant - has inner tube with forward projecting guide enclosed by outer tube with guide whereby outer tube can move axially relative to inner tube**

Patent Assignee: ASAHI KOGAKU KOGYO KK (ASAO); ASAHI OPTICAL CO LTD (ASAO); PENTAX CORP (ASAO)

Inventor: OJIMA S; TOKUHASHI Y; KOJIMA S

Patent Family ( 5 patents, 3 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 19713416	A1	19971030	DE 19713416	A	19970401	199749	B
JP 9266917	A	19971014	JP 199679113	A	19960401	199751	E
US 5885300	A	19990323	US 1997829229	A	19970331	199919	E
DE 19713416	B4	20060427	DE 19713416	A	19970401	200629	E
JP 3819962	B2	20060913	JP 199679113	A	19960401	200660	E

Priority Applications (no., kind, date): JP 199679113 A 19960401; DE 19713416 A 19970401

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
DE 19713416	A1	DE	9	10		
JP 9266917	A	JA	4			
JP 3819962	B2	JA	6		Previously issued patent	JP 09266917

#### Alerting Abstract DE A1

The guide device for an **intervertebral** implant (90) for fixing the implant between neighbouring **vertebrae** (50,60) has a handle (10) which is connected to an **inner tube** (20) into which a tool for inserting the **intervertebral** implant can be removably inserted. At the front end of the tube is a forward projecting guide (24).

A movable **outer tube** (30) which is mounted over the **inner tube** has at its end a forward projecting second guide (32). The moving **outer tube** can rotate relative to the **inner tube** and can move in the direction of its axis relative to the **inner tube**. The **outer tube** is provided with a grip piece (31) and forms a one piece construction with it.

**ADVANTAGE** - Ensures safe operation procedure with no damage to either bone marrow or nerve fibres.



**Title Terms /Index Terms/Additional Words:** GUIDE; DEVICE; **INTERVERTEBRAL**; IMPLANT; INNER; TUBE; FORWARD; PROJECT; ENCLOSE; OUTER; CAN; MOVE; AXIS; RELATIVE

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61F-002/46			Main		"Version 7"
A61B-017/92; A61F-002/44			Secondary		"Version 7"
A61B-0017/17	A	I		R	20060101
A61B-0017/88	A	N		R	20060101
A61B-0017/92	A	I	L	B	20060101
A61B-0019/00	A	N		R	20060101
A61F-0002/00	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/44	A	N		R	20060101
A61F-0002/46	A	I	F	B	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/56	A	I	F	B	20060101
A61B-0017/16	C	I		R	20060101
A61B-0017/88	C	I	L	B	20060101
A61B-0017/88	C	N		R	20060101
A61B-0019/00	C	N		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	N		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606099000, 606104000

File Segment: EngPI; ;  
DWPI Class: P31; P32

9/5/14 (Item 14 from file: 350) [Links](#)

Derwent WPIX

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0008356888 *Drawing available*

WPI Acc no: 1997-470596/199743

Related WPI Acc No: 1996-179678; 1996-279365; 2000-255672; 2002-116271

XRPX Acc No: N1997-392630

**Insertion tool for intervertebral implant - has body supporting central shaft and two coaxial tubes which can be independently rotated from their proximal ends and whose distal ends attach to implant**

Patent Assignee: HOWMEDICA OSTEONICS CORP (HOWN); SURGICAL DYNAMICS INC (SURG-N)

Inventor: MITCHELL S T; MITCHELL T; WINSLOW C J; WINSLOW J

Patent Family ( 7 patents, 20 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1997033525	A1	19970918	WO 1997US3869	A	19970313	199743	B
AU 199722069	A	19971001	AU 199722069	A	19970313	199805	E
US 5885299	A	19990323	US 1994306879	A	19940915	199919	E
			US 1994354364	A	19941212		
			US 1996616120	A	19960314		
EP 929264	A1	19990721	EP 1997915018	A	19970313	199933	E
			WO 1997US3869	A	19970313		
EP 929264	B1	20040901	EP 1997915018	A	19970313	200457	E
			WO 1997US3869	A	19970313		
DE 69730509	E	20041007	DE 69730509	A	19970313	200466	E
			EP 1997915018	A	19970313		
			WO 1997US3869	A	19970313		
DE 69730509	T2	20050929	DE 69730509	A	19970313	200568	E
			EP 1997915018	A	19970313		
			WO 1997US3869	A	19970313		

Priority Applications (no., kind, date): US 1994354364 A 19941212; US 1994306879 A 19940915; US 1996616120 A 19960314

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1997033525	A1	EN	31	12		
National Designated States,Original	AU CA JP					
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
AU 199722069	A	EN			Based on OPI patent	WO 1997033525
US 5885299	A	EN			C-I-P of application	US 1994306879
					C-I-P of application	US 1994354364
EP 929264	A1	EN			PCT Application	WO 1997US3869
					Based on OPI patent	WO 1997033525
Regional Designated States,Original	DE FR GB					
EP 929264	B1	EN			PCT Application	WO 1997US3869

				Based on OPI patent	WO 1997033525
Regional Designated States, Original	DE FR GB				
DE 69730509	E	DE		Application	EP 1997915018
				PCT Application	WO 1997US3869
				Based on OPI patent	EP 929264
				Based on OPI patent	WO 1997033525
DE 69730509	T2	DE		Application	EP 1997915018
				PCT Application	WO 1997US3869
				Based on OPI patent	EP 929264
				Based on OPI patent	WO 1997033525

#### Alerting Abstract WO A1

The tool comprises a **tubular outer** body (110) with a housing (112) at its proximal end, coaxially **within** which are a **tubular shaft** (118) and central rod (132). The rod and the **shaft** can each be rotated axially using knurled wheels (134,120) at their proximal ends. The entire tool can be rotated axially using a detachable handle (106).

Flats (130) around the circumference of the **shaft's** distal end engage the square recess in the cap of an **intervertebral** implant, such as a fusion cage. The rod has a threaded distal end (144) which can then be screwed into the cap. Tabs (116) projecting from the outer body's distal end fit recesses in the cage body.

ADVANTAGE - The tool securely holds the implant for insertion, and allows the cap of an implanted fusion cage to be removed for filling or for inspection of its contents.

**Title Terms /Index Terms/Additional Words:** INSERT; TOOL; **INTERVERTEBRAL**; IMPLANT ; BODY; SUPPORT; CENTRAL; **SHAFT**; TWO; COAXIAL; TUBE; CAN; INDEPENDENT; ROTATING; PROXIMITY; END; DISTAL; ATTACH

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61F-002/46			Main		"Version 7"

US Classification, Issued: 606099000, 606061000

File Segment: EngPI; ;  
DWPI Class: P31; P32

9/5/15 (Item 15 from file: 350) [Links](#)

Derwent WPIX

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0007739771 *Drawing available*

WPI Acc no: 1996-363757/199637

XRPX Acc No: N1996-306668

**Separating implant to replace missing vertebrae - has inner and outer cylindrical elements which have matching sets of internal grooves and ridges permitting only one way movement**

Patent Assignee: AESCULAP AG & CO KG (AESC-N); JBS SA (JBSJ-N)

Inventor: AMEIL M; DINVILLE H; GAU M; HUPPERT J; JEANSON J; JEANSON J F; MARNAY T

Patent Family ( 6 patents, 4 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 19604246	A1	19960808	DE 19604246	A	19960206	199637	B
FR 2730158	A1	19960809	FR 19951326	A	19950206	199639	E
JP 8266564	A	19961015	JP 199618968	A	19960205	199651	E
US 5723013	A	19980303	US 1996595955	A	19960206	199816	E
DE 29623988	U1	20010308	DE 29623988	U	19960206	200115	E
			DE 19604246	U	19960206		
DE 19604246	B4	20060601	DE 19604246	A	19960206	200638	E

Priority Applications (no., kind, date): FR 19951326 A 19950206; DE 19604246 A 19960206

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
DE 19604246	A1	DE	4	3		
JP 8266564	A	JA	4			
US 5723013	A	EN	4	3		
DE 29623988	U1	DE			Based on application	DE 19604246

**Alerting Abstract DE A1**

A **cylindrical outer element** (1) has a closed lower end from which locating lugs (7) project for fixing the implant in position. Inside the element are a series of circular grooves which in cross-section have a sawtooth profile. A vertical ridge (8) is formed along the inside of the element.

The **inner cylindrical element** (2) has a closed upper end with locating lugs (10) and circular outwardly projecting ridges which match the profile of the circular grooves of the outer element. A vertical slot (12) is used to engage the vertical ridge of the outer element. When implanted the inner element is **pushed** right into the outer element and is withdrawn to the required position.

ADVANTAGE - Implant can be expanded to required length but will not compress once set.

**Title Terms /Index Terms/Additional Words:** SEPARATE; IMPLANT; REPLACE; MISS; VERTEBRA; INNER; OUTER; CYLINDER; ELEMENT; MATCH; SET; INTERNAL; GROOVE; RIDGE; PERMIT; ONE; WAY; MOVEMENT

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"
A61B-017/56			Secondary		"Version 7"
A61F-0002/00	A	N		R	20060101
A61F-0002/30	A	I		R	20060101
A61F-0002/44	A	I	F	B	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/30	C	I		R	20060101
A61F-0002/44	C	I		R	20060101

US Classification, Issued: 623017000, 606061000, 606073000

File Segment: EngPI; ;

DWPI Class: P31; P32

9/5/16 (Item 16 from file: 350) [Links](#)

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0007143502 *Drawing available*

WPI Acc no: 1995-177972/199523

XRPX Acc No: N1995-139798

**Surgical cutting appts for excision and removal wide range of tissues - uses cam that engages spindle of motor and is of cylindrical shape with barrel shaped outer surface**

Patent Assignee: DANEK MEDICAL INC (DANE-N)

Inventor: IRELAND D C; MILLER M E

Patent Family ( 3 patents, 22 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5411513	A	19950502	US 1994201277	A	19940224	199523	B
WO 1995022935	A1	19950831	WO 1995US2358	A	19950224	199540	E
AU 199518830	A	19950911	AU 199518830	A	19950224	199550	E

Priority Applications (no., kind, date): US 1994201277 A 19940224

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 5411513	A	EN	9	7		
WO 1995022935	A1	EN	22	7		
National Designated	AU CA JP KR MX					

States,Original							
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE						
AU 199518830	A	EN			Based on OPI patent	WO 1995022935	

#### Alerting Abstract US A

The appts includes a motor driving a rotating output **shaft**. An outer housing is configured for insertion into a body site. A cutting blade is used for cutting body tissue at the body site. The cutting blade is configured for reciprocating movement within the outer housing. A transmission device is disposed between the motor and the cutting blade for converting rotary motion from the output **shaft** to reciprocating linear motion of the cutting blade

The transmission device includes a first cam connected to one of the output **shaft** and the cutting blade. The first cam has a cylindrical surface with a channel defined continuously around its circumference.

USE/ADVANTAGE - In orthopaedic and **spinal** surgery for min invasive use. Clean excision without tearing and of aspirating tissue pieces efficiently without clogging. Smaller than typical reciprocating instrument.

**Title Terms /Index Terms/Additional Words:** SURGICAL; CUT; APPARATUS; EXCISION; REMOVE; WIDE; RANGE; TISSUE; CAM; ENGAGE; SPINDLE; MOTOR; CYLINDER; SHAPE; BARREL; OUTER; SURFACE

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/32			Main		"Version 7"

US Classification, Issued: 606171000, 604022000

File Segment: EngPI; EPI;

DWPI Class: S05; P31

Manual Codes (EPI/S-X): S05-B03

9/5/19 (Item 19 from file: 350) [Links](#)

Derwent WPIX

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0004483433 *Drawing available*

WPI Acc no: 1988-227384/198832

**Hand-held article carrier - has seat with laterally spaced supports attached to shafts via pivots**

Patent Assignee: GONZALEZ C (GONZ-I)

Inventor: GONZALEZ C

##### Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 4759578	A	19880726	US 198749316	A	19870513	198832	B

Priority Applications (no., kind, date): US 198749316 A 19870513

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 4759578	A	EN	6	4	

**Alerting Abstract US A**

The carrier has seat assembly including laterally spaced apart, longitudinally extending supports each having opposite, fixed ends. Each support includes a pair of **telescopically** engaged, rigid, elongated **inner** and **outer tubes**. The opposite ends are respectively pivotally joined to a pair of transversely extending **shafts**. Spacers on the **shafts** maintains the support in a fixed lateral spacing.

A pair of end assemblies each includes a pair of equi-length, elongated, rigid side elements each provided with an outer and a lower end. Each pair of side element lower ends is respectively pivotally attached to one said transversely extending **shaft**.

ADVANTAGE - Reduced risk of backstrain.

**Title Terms** /Index Terms/Additional Words: HAND; HELD; ARTICLE; CARRY; SEAT; LATERAL; SPACE; SUPPORT; ATTACH; **SHAFT**; PIVOT

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
B65G-0007/12	A	I		R	20060101
B65G-0007/00	C	I		R	20060101

US Classification, Issued: 294015000, 294137000, 294169000, 294172000

File Segment: EngPI; ;

DWPI Class: P33

?

13/5/7 (Item 7 from file: 350) [Links](#)

Derwent WPIX

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0010639500 *Drawing available*

WPI Acc no: 2001-246759/200126

XRPX Acc No: N2001-175746

**Corpectomy device used to support spine after removal of part of all of a vertebra, includes locking clip**

**which engages telescoping inner and outer members to axially fix position of inner member with respect to outer member**

Patent Assignee: HOWMEDICA OSTEONICS CORP (HOWN); STRYKER SPINE (STYC); STRYKER SPINE SA (STYC)

Inventor: AN H; CROZET Y; HARRINGTON T

Patent Family ( 10 patents, 28 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1080703	A2	20010307	EP 2000117704	A	20000817	200126	B
JP 2001104325	A	20010417	JP 2000264740	A	20000901	200128	E
AU 200053505	A	20010308	AU 200053505	A	20000818	200137	E
CA 2317095	A1	20010302	CA 2317095	A	20000828	200138	E
AU 772396	B2	20040429	AU 200053505	A	20000818	200457	E
EP 1080703	B1	20041117	EP 2000117704	A	20000817	200476	E
DE 60015879	E	20041223	DE 60015879	A	20000817	200501	E
			EP 2000117704	A	20000817		
US 6866682	B1	20050315	US 1999388726	A	19990902	200520	E
US 20050113921	A1	20050526	US 1999388726	A	19990902	200535	E
			US 200410496	A	20041213		
CA 2317095	C	20050802	CA 2317095	A	20000828	200552	E

Priority Applications (no., kind, date): US 200410496 A 20041213; EP 2000117704 A 20000817; US 1999388726 A 19990902

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
EP 1080703	A2	EN	19	17		
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2001104325	A	JA	14			
CA 2317095	A1	EN				
AU 772396	B2	EN			Previously issued patent	AU 200053505
EP 1080703	B1	EN				
Regional Designated States,Original	DE FR GB IT					
DE 60015879	E	DE			Application	EP 2000117704
					Based on OPI patent	EP 1080703
US 20050113921	A1	EN			Continuation of application	US 1999388726
					Continuation of patent	US 6866682
CA 2317095	C	EN				



### Alerting Abstract EP A2

**NOVELTY** - The device comprises an inner member (11) that moves **telescopically** in an outer member (12) so that the inner member is **movable** in an **axial** direction. The inner and outer members are hollow, forming a chamber, and include apertures in communication with the chamber. A locking clip (14) engages the inner and outer members to fix the position of the inner member with respect to the outer member. The longitudinal dimension of the device is adjustable by distracting the inner member so that the inner member extends from the outer **member** and moving the **locking** clip from an unlocked position to a locked position.

**USE** - As a prosthesis device for maintaining the normal spacing of **vertebrae** and to support the **spine**.

**ADVANTAGE** - Enables convenient method for **locking** the **device** at the correct height.

**DESCRIPTION OF DRAWINGS** - The drawing shows a perspective view of the device.

11 Inner member

12 Outer member

14 Locking clip

**Title Terms /Index Terms/Additional Words:** DEVICE; SUPPORT; **SPINE**; AFTER; REMOVE ; PART; **VERTEBRA**; LOCK; CLIP; ENGAGE; **TELESCOPE**; INNER; OUTER ; MEMBER; AXIS; FIX; POSITION; RESPECT

### Class Codes

#### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58; A61B-017/70; A61F-002/44			Main		"Version 7"

US Classification, Issued: 623017110, 623017150, 623017110

File Segment: EngPI; ;

DWPI Class: P31; P32

13/5/9 (Item 9 from file: 350) [Links](#)

Derwent WPIX

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0009571413 *Drawing available*

WPI Acc no: 1999-518366/199943

XRPX Acc No: N1999-385538

**Spreader for setting spacing between two vertebrae**

Patent Assignee: BIEDERMANN MOTECH GMBH (BIED-N)

Inventor: BIEDERMANN L; HARMS J

#### Patent Family ( 9 patents, 26 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
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WO 1999039665	A1	19990812	WO 1999EP526	A	19990127	199943	B
DE 19804765	A1	19990826	DE 19804765	A	19980206	199944	E
EP 977528	A1	20000209	EP 199908828	A	19990127	200012	E
			WO 1999EP526	A	19990127		
TW 370456	A	19990921	TW 1999100939	A	19990122	200036	E
DE 19804765	C2	20000928	DE 19804765	A	19980206	200048	E
US 6200348	B1	20010313	WO 1999EP526	A	19990127	200120	E
			US 1999402425	A	19991004		
JP 2002502299	W	20020122	JP 1999539946	A	19990127	200211	E
			WO 1999EP526	A	19990127		
EP 977528	B1	20020502	EP 199908828	A	19990127	200230	E
			WO 1999EP526	A	19990127		
DE 59901335	G	20020606	DE 59901335	A	19990127	200237	E
			EP 199908828	A	19990127		
			WO 1999EP526	A	19990127		

Priority Applications (no., kind, date): DE 19804765 A 19980206

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1999039665	A1	DE	19	14		
National Designated States, Original	CA CN HU JP KR NO US					
Regional Designated States, Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
EP 977528	A1	DE			PCT Application	WO 1999EP526
					Based on OPI patent	WO 1999039665
Regional Designated States, Original	AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
TW 370456	A	ZH				
US 6200348	B1	EN			PCT Application	WO 1999EP526
					Based on OPI patent	WO 1999039665
JP 2002502299	W	JA	15		PCT Application	WO 1999EP526
					Based on OPI patent	WO 1999039665
EP 977528	B1	DE			PCT Application	WO 1999EP526
					Based on OPI patent	WO 1999039665
Regional Designated States, Original	AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
DE 59901335	G	DE			Application	EP 199908828
					PCT Application	WO 1999EP526
					Based on OPI patent	EP 977528
					Based on OPI patent	WO 1999039665

### Alerting Abstract WO A1

**NOVELTY** - The spreader has two concentric **tubes** (1,2) with **outer** thrust ends to press into the respective **vertebrae**. The **inner tube** has a ratchet track up its length while the **outer tube** has two holes, each over the ratchet track. The relative axial setting of the tubes is held by a spring loaded ratchet grip screwed into one hole while a locking stopped is screwed into the second hole, when the optimum axial setting is reached. The spring loaded grip is then removed.

**USE** - For replacing inter **vertebrae** discs with fixed link.

**ADVANTAGE** - No need for rotating or cutting action which could damage the **vertebrae**.

**Title Terms /Index Terms/Additional Words:** SPREAD; SET; SPACE; TWO; VERTEBRA

### Class Codes

#### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"
A61B-017/56; A61F-002/30; A61F-002/46			Secondary		"Version 7"

US Classification, Issued: 623017110, 623017160, 606061000

File Segment: EngPI; ;

DWPI Class: P31; P32

13/5/10 (Item 10 from file: 350) [Links](#)

Derwent WPIX

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0009419624 *Drawing available*

WPI Acc no: 1999-357098/199930

XRPX Acc No: N1999-265882

**Surgical cutting tool, which can cut through hard tissue, e.g. in orthopedic or spinal surgery**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: IRELAND D C; MILLER M E

#### Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5911701	A	19990615	US 199815832	A	19980129	199930	B

Priority Applications (no., kind, date): US 199815832 A 19980129

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 5911701	A	EN	12	8	

**Alerting Abstract US A**

**NOVELTY** - The instrument has flexible **outer tubular** assembly (12) for percutaneous insertion into an anatomical space, and having an a cutting opening at its angle tipped distal end, the proximal end being supported by a hand piece (20). A cutting member **slides** (16) **within** the **outer tubular** assembly, and has a tubular cutting head defining an end opening and a cutting edge (33) at the end opening.

**DESCRIPTION** - The **outer tubular** assembly may has a flexible segment (14) connected between two more rigid **segments** by means of **locking** grooves. The cutting **member** includes a flexible drive portion (19) attached to the cutting head portion to permit the cutting head portion to flex relative to the remainder of the cutting member and relative to the **outer tubular** assembly. The flexible segment and the drive portion allow the cutting instrument to be pre-configured to navigate through tissue to the cutting site.

**USE** - In procedures where an infected inter **vertebral** disc has to be removed for replacement with bone graft material, or replanted with prosthetic disc. May also be used in prostate and gall bladder removal.

**ADVANTAGE** - Avoids trauma to surrounding tissue. Flexible drive allows reciprocating cutter to be bent to flex and reach surgical site without sacrificing cutting force. Tissue is cleanly excised.

**DESCRIPTION OF DRAWINGS** - The figure shows cutaway and side views.

- 12 **outer cannula**
- 14 flexible segment
- 16 cutting member
- 19 flexible drive
- 20 hand piece
- 32 cutter opening
- 33 cutting edge

**Title Terms /Index Terms/Additional Words:** SURGICAL; CUT; TOOL; CAN; THROUGH; HARD; TISSUE; SPINE

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/20			Main		"Version 7"

US Classification, Issued: 604022000, 606170000

File Segment: EngPI; ;  
DWPI Class: P31

13/5/12 (Item 12 from file: 350) [Links](#)

Derwent WPIX

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0008071451 *Drawing available*

WPI Acc no: 1997-167621/199716

XRPX Acc No: N1997-137844

**Device for regulating length of combined spinal-epidural needle - has inner and outer cylinders and lockable spring element to secure needle in passage**

Patent Assignee: BECTON DICKINSON & CO (BECT); BECTON DICKINSON CO (BECT)

Inventor: HOUGHTON F C

Patent Family ( 10 patents, 8 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 763348	A2	19970319	EP 1996306466	A	19960905	199716	B
JP 9108345	A	19970428	JP 1996244876	A	19960917	199727	E
EP 763348	A3	19970423	EP 1996306466	A	19960905	199729	E
CA 2183703	A	19970316	CA 2183703	A	19960820	199730	E
KR 1997014782	A	19970428	KR 199639946	A	19960914	199817	E
MX 199603835	A1	19970301	MX 19963835	A	19960903	199820	E
BR 199603576	A	19980519	BR 19963576	A	19960828	199826	E
US 5836914	A	19981117	US 1995529301	A	19950915	199902	E
CA 2183703	C	20000418	CA 2183703	A	19960820	200036	E
KR 188292	B1	19990601	KR 199639946	A	19960914	200055	E

Priority Applications (no., kind, date): US 1995529301 A 19950915

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
EP 763348	A2	EN	24	13		
Regional Designated States,Original		DE FR GB				
JP 9108345	A	JA	17			
EP 763348	A3	EN				
CA 2183703	A	EN				
BR 199603576	A	PT				
CA 2183703	C	EN				

**Alerting Abstract EP A2**

The device (10) comprises an **inner cylinder** (32) for securing the epidural needle (14) and an **outer cylinder** (51) which **slides** over the **inner cylinder** for securing the **spinal** needle (12). There is a **spring element** (60) for **selectably locking** the **spinal** needle relative to the epidural needle. The spring element has one end fixed to the first

member and a free end (64) which is manipulable by a practitioner. There is a passage between the fixed and free ends of the spring element and the **spinal** needle passes through the passage.

The spring element is deflectable between a locked or unlocked position. When locked, a portion of the spring element adjacent the passage **engages** the **spinal** needle and the **inner cylinder** is locked relative to the **outer cylinder**. When unlocked, the **spinal** needle is able to **slide** through the passage, allowing the **outer cylinder** to **slide** relative to the **inner cylinder** and the extension (X) of the **spinal** needle relative to the epidural needle may be adjusted.

USE/ADVANTAGE - For use during procedure for delivery of medicament to the subarachnoid space. Provides a smoother action by reducing the frictional resistance between the tubes and better tactile feedback to the practitioner.

**Title Terms /Index Terms/Additional Words:** DEVICE; REGULATE; LENGTH; COMBINATION; **SPINE**; EPIDURAL; NEEDLE; INNER; OUTER; CYLINDER; LOCK; SPRING; ELEMENT; SECURE; PASSAGE

### Class Codes

#### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/34; A61M-025/01; A61M-005/00; A61M-005/142; A61M-005/32			Main		"Version 7"
A61M-019/00; A61M-037/00; A61M-005/46			Secondary		"Version 7"

US Classification, Issued: 604117000, 604158000

File Segment: EngPI; ;  
DWPI Class: P31; P34

13/5/13 (Item 13 from file: 350) [Links](#)

Derwent WPIX

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0007890915

WPI Acc no: 1996-068108/199607

XRAM Acc no: C1996-022050

XRPX Acc No: N1996-057349

**Regulation of length of combined spinal-epidural needle - comprises using device having pair of mating sliding members and tab for regulating free and fixed positions**

Patent Assignee: BECTON DICKINSON & CO (BECT); BECTON DICKINSON CO (BECT)

Inventor: ANTOSHKIW W T; GREGG J J; MC WAH K; MC WHA K; MCWHA K; TALBOYS N

Patent Family ( 20 patents, 22 countries )

Application Number

Patent Number	Kind	Date		Kind	Date	Update	Type
US 5480389	A	19960102	US 1994287995	A	19940809	199607	B
EP 696437	A2	19960214	EP 1995201635	A	19950617	199611	E
FI 199503765	A	19960210	FI 19953765	A	19950808	199617	E
JP 8057052	A	19960305	JP 1995203323	A	19950809	199619	E
AU 199524935	A	19960222	AU 199524935	A	19950711	199620	E
BR 199503558	A	19960416	BR 19953558	A	19950807	199622	E
CA 2151006	A	19960210	CA 2151006	A	19950605	199622	E
EP 696437	A3	19960327	EP 1995201635	A	19950617	199624	E
SG 32447	A1	19960813	SG 19951079	A	19950807	199641	E

TW 308531	A	19970621	TW 1995106455	A	19950623	199740	E
CN 1116552	A	19960214	CN 1995115210	A	19950807	199742	E
JP 2787012	B2	19980813	JP 1995203323	A	19950809	199837	E
AU 694518	B	19980723	AU 199524935	A	19950711	199841	E
EP 696437	B1	19990908	EP 1995201635	A	19950617	199941	E
DE 69511967	E	19991014	DE 69511967	A	19950617	199949	E
			EP 1995201635	A	19950617		
CA 2151006	C	19990803	CA 2151006	A	19950605	199951	E
ES 2136240	T3	19991116	EP 1995201635	A	19950617	200001	E
DE 29522168	U1	20000224	DE 29522168	U	19950617	200017	E
			EP 1995201635	U	19950617		
MX 188559	B	19980407	MX 19952617	A	19950614	200027	E
KR 161328	B1	19981116	KR 199524365	A	19950808	200030	E

Priority Applications (no., kind, date): US 1994287995 A 19940809

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 5480389	A	EN	19	12		
EP 696437	A2	EN	19	12		
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IT LI NL SE					
JP 8057052	A	JA	13	1		
BR 199503558	A	PT				
CA 2151006	A	EN				
EP 696437	A3	EN				
SG 32447	A1	EN				
TW 308531	A	ZH				
JP 2787012	B2	JA	12		Previously issued patent	JP 08057052
AU 694518	B	EN			Previously issued patent	AU 9524935
EP 696437	B1	EN				
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IT LI NL SE					
DE 69511967	E	DE			Application	EP 1995201635
					Based on OPI patent	EP 696437
CA 2151006	C	EN				
ES 2136240	T3	ES			Application	EP 1995201635
					Based on OPI patent	EP 696437
DE 29522168	U1	DE			Based on application	EP 1995201635

Alerting Abstract US A



Regulating the extension length of a **spinal** needle (12) relative to an epidural needle (14) comprises using a tube (51) which **slides** on an **inner tube** (32), each **tube** being fixed to one of the needles. The **inner tube** has an axially extending slot (36) providing access to a structured interior surface (38) of concentric groove elements (38a), while the **outer tube** has an **outside** surface (53) e.g. forming a hexagon. Contact points are established by the intersection of the rounded outside surface of the **inner tube** and the planar surfaces (58) **inside** the **outer tube**. An actuating tab (50) formed on the **outer tube** forms a selectable fixed connection between the tubes to lock them.

ADVANTAGE - The insertion or removal of a **spinal** needle can be precisely monitored, with good tactile feedback.

**Title Terms** /Index Terms/Additional Words: REGULATE; LENGTH; COMBINATION; **SPINE**; EPIDURAL; NEEDLE; COMPRISE; DEVICE; PAIR; MATE; **SLIDE**; MEMBER; TAB; FREE; FIX; POSITION

### Class Codes

#### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/34; A61M; A61M-019/00; A61M-019/000; A61M-025/00; A61M-005/158; A61M-005/178; A61M-005/32; A61M-005/46			Main		"Version 7"
A61M-016/01; A61M-021/02			Secondary		"Version 7"

US Classification, Issued: 604165000, 604158000

File Segment: CPI; EngPI

DWPI Class: B07; P31; P34

Manual Codes (CPI/A-N): B11-C02

?

17/5/13 (Item 13 from file: 350) [Links](#)

Derwent WPIX

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0010782986 *Drawing available*

WPI Acc no: 2001-398064/200142

Related WPI Acc No: 2002-641918; 2002-681079; 2003-278209

XRAM Acc no: C2001-121044

XRPX Acc No: N2001-293395

**Distractor for use in spine surgery, comprises handle with blind bore front end and manual grasping rear, and tip with tapered and broad end interfitting with blind bore to remove handle from tip, during surgery**

Patent Assignee: HAMADA J S (HAMA-I)

Inventor: HAMADA J S

Patent Family ( 2 patents, 92 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001043620	A2	20010621	WO 2000US28902	A	20001012	200142	B
AU 200112153	A	20010625	AU 200112153	A	20001016	200162	E

Priority Applications (no., kind, date): US 1999416922 A 19991013; US 2000545401 A 20000407

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001043620	A2	EN	112	72		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
AU 200112153	A	EN			Based on OPI patent	WO 2001043620

**Alerting Abstract WO A2**

NOVELTY - A distractor (31) for use in **spine** surgery, comprises a handle portion (33) and a tip portion (35). (33) has a front end having blind bore (51) extending along an axis of (33) and a rear portion for manual grasping. (35) has a tapering end (37) and a broad end (41). The broad end interfits with blind bore to enable (33) to be removed from (35), when (35) is engaged in a surgical field.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- E. box chisel, comprising a shaft having a first end having a generally rectangular transverse profile including a pair of oppositely disposed shorter sides each having a blade edge and a pair of oppositely disposed longer sides, each having a blade edge, which are curved away from each other, and a second end;
- F. curette comprising a handle portion having a first and second end, a straight shaft connected to the first end of the handle, a ring cutting member at the first end of the shaft and at an angle to the straight end;
- G. bone implant useful in spine fusion comprising, a cylindrical structure having a **smooth** circumferentially outward disposed wall, an first surface at an end of the outer wall, and a second surface at a second end of the disposed outer wall, where the first surface is angled to the second;
- H. impactor comprising an impact frame having a front end curved to support a bone implant to bone impacted and a butt end to receive an impact force and central opening, a pair of grasping jaws supported with respect to the impact frame, extending forward for supporting the bone implant. The jaws have restricted movement toward and away from the front end of the impact frame to enable an impact force to be delivered from the frame to the implant, whilst isolating the jaws from receiving an impact force;
- I. bone notcher comprising an elongated body having a first end and a second end, The first end has an extended rounded insertion member for registering and aligning the body within an intervertebral space, with the first face also having a blade set back **from** the insertion member and a separated from it, and having a cutting edge extending radially away from the insertion member;

- J. rasp for use in spine surgery comprising, a head portion for fitting within an intervertebral space between 2 **adjacent** vertebral bone plates and having an upper and lower **face** and an outwardly disposed **face** extending between the upper and lower faces, where at least one portion of the faces or surface includes a rasp surface, and a shaft extending from the outwardly disposed surface to permit a head portion to be angularly displaced at least slightly within the invetevertebral space;
- K. intervertebral sizing tool system for use in spine surgery comprising a head portion for fitting within **an** intervertebral space between 2 adjacent verterbal **bone** plates and having an upper and lower face of **pre-determined** diameter and thickness between the height of the upper and lower faces and a shaft extending form the outwardly disposed surface to permit the head portion to be angularly displaced at least slightly with the intervertebral space;
- L. intervertebral measuring instrument comprising a first portion fittable to bear against a second portion **for** insertion into an **intervertebral** space, a load cell mounted to receive the force of the first portion towards the second portion **and** information transmission structures associated with the cell for transmitting information about the measured force of the first portion toward the second portion away from the load cell;
- M. bone graft useful in facilitating bone graft growth and healing process comprising 13-17 cm<sup>3</sup> of dematerialized cortical bone powder (particle size 100-500 microm), 2-5 cm<sup>3</sup> of autologous bone chips (particle size 0.5-2.0 mm), 20-50 cm<sup>3</sup> of natural autologous platelets and fibrin in mutual proportion as extracted from human blood and 1-5 cm<sup>3</sup> of bovine thrombin; and
- N. syringe for applying a bone graft comprising a cylindrical tube, a restriction cap attachable to the tube, a plunger having a piston engageable with an inside surface of the tube, a finger ring fitting for slidably supporting the plunger and for engaging the tube, syringe and cap to enable pressured removal of excess liquid from bone graft composition.

USE - For spinal fusion surgery.

ADVANTAGE - The system containing distractor as surgical instrumentation, provides improved spinal fusion, reduces trauma and disturbance to surrounding tissues, reduces time necessary to complete the operative procedure, increases safety and accuracy of the procedure, provides improved instrumentation both for preparation and measurement. The system improves bone **implant** compatible with instrumentation and procedure, both for anterior and anterolateral approaches to the spine with both open procedures as well as endoscopic procedure. The system precisely place the graft under proper tension and in best position to achieve spine balance and fusion. The instrumentations in the system comprises scale **which** efficiently provide the surgeon with an instant reading on the depth of penetration into the intervertebral space. The curette efficiently enables the material in **the** intervertebral space, to be removed. The system provides increased safety and consistency in vertebral implant operative procedures. The implant can be pre-formed in a series of beneficial shape and structure attributes, and can be made of any materials such as human harvested allograft and modern manufactured materials, which **enables** quick, easy and definite selection. The notch efficiently stabilizes the resting location of the distractor, and creates fine bone fragments in the space between the vertebrae, which efficiently accelerates the fusive bone growth.

DESCRIPTION OF DRAWINGS - The figure shows a plan exploded view of a distractor.

- 31 Distractor
- 33 Handle portion
- 35 Tip portion
- 37 Tapering end
- 41 Broad end
- 51 Blind bore

**Title Terms /Index Terms/Additional Words:** DISTRACTION; **SPINE**; SURGICAL; COMPRISE; HANDLE;

BLIND; BORE; FRONT; END; MANUAL; GRASP; REAR; TIP; TAPER; BROAD; INTERFITTING; REMOVE

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B			Main		"Version 7"

File Segment: CPI; EngPI

DWPI Class: B07; P31

Manual Codes (CPI/A-N): B11-C04

17/5/15 (Item 15 from file: 350) [Links](#)

Derwent WPIX

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0010356655 *Drawing available*

WPI Acc no: 2000-672290/200065

Related WPI Acc No: 1998-311242

XRPX Acc No: N2000-498418

**Orthopaedic rod connecting assembly for spinal column implants has two elements connected together by shaft and compressible sleeve arrangement at ends of elements**

Patent Assignee: SPINAL CONCEPTS INC (SPIN-N)

Inventor: ERRICO J P

##### Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6139548	A	20001031	US 1995549977	A	19951030	200065	B
			US 199859108	A	19980413		

Priority Applications (no., kind, date): US 1995549977 A 19951030; US 199859108 A 19980413

##### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 6139548	A	EN	11	9	Continuation of application	US 1995549977
					Continuation of patent	US 5752955

#### Alerting Abstract US A

NOVELTY - The assembly has two elements (100,130) connected together by a shaft (114) and compressible sleeve arrangement at the ends of the elements. The other ends (102,132) of the elements receive a **spinal** rod during use. One or more of the inner surface of the sleeve and the outer surface of the shaft are textured to increase the friction between the inner surface of the sleeve and the shaft.

DESCRIPTION - INDEPENDENT CLAIMS are included for a method of manufacturing the rod, and a method of

increasing the rigidity of the rod implant system, respectively.

USE - For **spinal** procedures.

ADVANTAGE - Enhanced rigidity.

DESCRIPTION OF DRAWINGS - The drawing shows a side perspective view of the assembled rod system.

102,132 **Spinal** rod receiving ends

100,130 Elements

114 Shaft

**Title Terms** /Index Terms/Additional Words: ORTHOPAEDIC; ROD; CONNECT; ASSEMBLE; **SPINE**; COLUMN; IMPLANT; TWO; ELEMENT; SHAFT; COMPRESS; SLEEVE; ARRANGE; END

### Class Codes

#### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000, 606069000, 606072000

File Segment: EngPI; ;

DWPI Class: P31

17/5/16 (Item 16 from file: 350) [Links](#)

Derwent WPIX

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0009817585 *Drawing available*

WPI Acc no: 2000-108283/200010

XRPX Acc No: N2000-083308

**Surgical instrument, e.g. for orthopedic use**

Patent Assignee: SIRIUS MEDICAL SRL (SIRI-N)

Inventor: POLIDORI C

#### Patent Family ( 2 patents, 25 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 974321	A1	20000126	EP 1999113695	A	19990716	200010	B
IT 1304818	B	20010405	IT 1998MO164	A	19980720	200224	E

Priority Applications (no., kind, date): IT 1998MO164 A 19980720

#### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
EP 974321	A1	EN	7	3	

Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
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#### Alerting Abstract EP A1

NOVELTY - The instrument has a grip which internally forms a seat for a fixed shutter (6) which is crossed by corresponding ducts parallel to the longitudinal axis for the passage of at least, respectively, a fluid for actuating the blade (4), and a liquid for wetting the active end of the blade and for aspirating the used liquid.

DESCRIPTION - The shutter forms a chamber for the reciprocating sliding of a pusher element (12) connected to the base of the blade. It is actuated by fluid with a recessed seat for dynamically accommodating a reservoir for the wetting liquid which can perform a reciprocating motion rigidly with the blade.

USE - To treat disorders arising from **vertebral** damage or from slipped disks, and also in eye surgery.

ADVANTAGE - Easy to use and maintain.

DESCRIPTION OF DRAWINGS - The drawing shows a longitudinal sectional view of the instrument.

4 Blade

6 Fixed shutter

12 Pusher element

**Title Terms /Index Terms/Additional Words:** SURGICAL; INSTRUMENT

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B; A61F-009/007			Main		"Version 7"

File Segment: EngPI; ;

DWPI Class: P31; P32

17/5/17 (Item 17 from file: 350) [Links](#)

Derwent WPIX

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0007002202 *Drawing available*

WPI Acc no: 1995-014024/199502

XRPX Acc No: N1995-010972

**Mounting for spinal fixation appts. - has screw attached to vertebra, with spacer to engage exterior surface of vertebra**

Patent Assignee: STARK J G (STAR-I)

Inventor: STARK J G

##### Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5368593	A	19941129	US 1992909602	A	19920707	199502	B

Priority Applications (no., kind, date): US 1992909602 A 19920707

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 5368593	A	EN	14	25	

**Alerting Abstract US A**

A screw is threadably attached to the **vertebra**, and a spacer is provided for receipt on the screw. The spacer is positioned to engage an exterior surface of the **vertebra**. The hardware, such as a nut, or saddle assembly, engages a second surface of the spacer.

A conical, curved, or flat surface may be provided. One or more teeth may be provided for engaging the bone surface. A porous wafer may be used in combination with the spacer to permit bone ingrowth into the porous wafer following attachment. Porous material may also be used in connection with the spacer surface which engages the bone surface. Additional spacers may be provided to further position the hardware away from the surface of the bone.

ADVANTAGE - By tightening down the hardware on the second surface of the spacer, a secure attachment of the hardware and screw to the bone is provided.

**Title Terms /Index Terms/Additional Words:** MOUNT; **SPINE**; FIX; APPARATUS; SCREW; ATTACH; **VERTEBRA**; SPACE; ENGAGE; EXTERIOR; SURFACE

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56			Main		"Version 7"

US Classification, Issued: 606061000, 606072000

File Segment: EngPI; ;

DWPI Class: P31

17/5/21 (Item 21 from file: 350) [Links](#)

Derwent WPIX

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0006639042 *Drawing available*

WPI Acc no: 1994-015923/199402

XRPX Acc No: N1994-012017

**Coupler for spinal system - comprises clamping screw constituting abutment or stop engageable with hook-shaped end of male section with relief**

Patent Assignee: BRISTOL-MYERS CO (BRIM); BRISTOL-MYERS SQUIBB CO (BRIM); ZIMMER INC (ZIMV)

Inventor: ALLARD R N; KOROTKO J R

Patent Family ( 8 patents, 5 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5275600	A	19940104	US 1992956199	A	19921005	199402	B
EP 594236	A1	19940427	EP 1993202825	A	19931004	199417	E
AU 199348668	A	19940421	AU 199348668	A	19930929	199421	E
CA 2106798	A	19940406	CA 2106798	A	19930923	199425	E
AU 665673	B	19960111	AU 199348668	A	19930929	199609	E
EP 594236	B1	19980708	EP 1993202825	A	19931004	199831	E
DE 69319536	E	19980813	DE 69319536	A	19931004	199838	E
			EP 1993202825	A	19931004		
CA 2106798	C	20040511	CA 2106798	A	19930923	200432	E

Priority Applications (no., kind, date): US 1992956199 A 19921005

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 5275600	A	EN	8	8		
EP 594236	A1	EN	10	9		
Regional Designated States,Original	DE FR GB					
CA 2106798	A	EN				
AU 665673	B	EN			Previously issued patent	AU 9348668
EP 594236	B1	EN				
Regional Designated States,Original	DE FR GB					
DE 69319536	E	DE			Application	EP 1993202825
					Based on OPI patent	EP 594236
CA 2106798	C	EN				

#### Alerting Abstract US A

A relief in the male section defines a hook shaped end. The hook shaped end, in association with a clamping screw carried by the female section, requires the rod sections to axially rotate 180 degrees in a screw-like manner during assembly and disassembly.

The clamping screw constitutes an abutment or stop for engagement with the hook shaped end to provide a positive stop to prevent the sections from accidentally sliding past their extremes and out of engagement with one another during the surgery. Further, the reliefs provided within the male telescoping section permit the two rod sections to be firmly fixed to one another, with one section axially rotated slightly relative to the other rod section.

USE - A telescoping rod to rod coupler which substantially eliminates the chances of the two rod sections



disconnecting from one another.

**Title Terms /Index Terms/Additional Words:** COUPLE; **SPINE**; SYSTEM; COMPRISE; CLAMP; SCREW; CONSTITUTE; ABUT; STOP; ENGAGE; HOOK; SHAPE; END; MALE; SECTION; RELIEF

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61B-017/58			Main		"Version 7"

US Classification, Issued: 606061000, 606072000

File Segment: EngPI; ;  
DWPI Class: P31

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18/5/6 (Item 6 from file: 350) [Links](#)

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0013653708 *Drawing available*

WPI Acc no: 2003-749824/200371

Related WPI Acc No: 1997-261123

XRPX Acc No: N2003-601052

**Device for inserting implant has elongated elastic body adopting shape of spiral in force-free state, holding devices for part of spiral, and devices for metered movement of spiral**

Patent Assignee: CENTERPULSE ORTHOPEDICS LTD (CENT-N); ZIMMER GMBH (ZIMV)

Inventor: BAUMGARTNER W; FREUDIGER S; HUSSON J; BAUMGARTNER N; HUSSON

Patent Family ( 3 patents, 13 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1350490	A2	20031008	EP 1995810701	A	19951108	200371	B
			EP 200313559	A	19951108		
EP 1350490	B1	20061227	EP 199513559	A	19951108	200702	E
DE 59511075	G	20070208	DE 59511075	A	19951108	200723	E
			EP 200313559	A	19951108		

Priority Applications (no., kind, date): EP 1995810701 A 19951108; EP 200313559 A 19951108; EP 199513559 A 19951108

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
EP 1350490	A2	DE	8	5	Division of application	EP 1995810701
					Division of patent	EP 773008
Regional Designated States,Original	AT BE CH DE ES FR GB IT LI LT NL SE SI					
EP 1350490	B1	DE				
Regional Designated States,Original	AT BE CH DE ES FR GB IT LI NL SE					
DE 59511075	G	DE			Application	EP 200313559
					Based on OPI patent	EP 1350490

**Alerting Abstract EP A2**

NOVELTY - Device for inserting an implant, especially an **intervertebral** prosthesis, comprises an elongated elastic body adopting the shape of a spiral (S) in a force-free state, holding devices for at least one part of the spiral, and devices for metered movement of the spiral.

DESCRIPTION - Preferred Features: The holding device is a hollow tube (10) with a square cross-section having an angled distal end for facilitating insertion into the **intervertebral** space. The moving devices are provided in the form of an elongated, preferably elastic **slide** (12) **within** the hollow **tube**. The **slide** has on its distal end tooth-like protrusions (14) which interact with the elastic body through the distal angled section of the tube so that the elastic body moves with the **slide**.

USE - For inserting an implant, especially an **intervertebral** prosthesis.

ADVANTAGE - The device has a simple construction that can be easily and securely attached to instruments and facilitates handling of an implant.

DESCRIPTION OF DRAWINGS - The drawing shows a schematic view of an insertion device.

10 hollow tube

11 narrowing section

12 **slide**

13 lever mechanism

14 protrusion

S spiral

**Title Terms /Index Terms/Additional Words:** DEVICE; INSERT; IMPLANT; ELONGATE; ELASTIC; BODY; ADOPT; SHAPE; SPIRAL; FORCE; FREE; STATE; HOLD; PART; METER; MOVEMENT

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/00	A	N		R	20060101
A61B-0017/32	A	I		R	20060101
A61B-0017/32	A	I	L	B	20060101
A61B-0017/56	A	I	F	R	20060101

A61F-0002/00	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/44	A	I	F	B	20060101
A61F-0002/46	A	I		R	20060101
A61F-0002/46	A	I	L	B	20060101
A61B-0017/32	A	I	L		20060101
A61F-0002/44	A	I	F		20060101
A61F-0002/46	A	I	L		20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/32	C	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101
A61B-0017/32	C	I			20060101
A61F-0002/44	C	I			20060101
A61F-0002/46	C	I			20060101

File Segment: EngPI; ;  
DWPI Class: P32; P31

18/5/10 (Item 10 from file: 350) [Links](#)

Derwent WPIX

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0009028431 *Drawing available*

WPI Acc no: 1998-585471/199850

Related WPI Acc No: 2003-357023

XRPX Acc No: N1998-456416

**Transverse connector clip for interconnecting two elongated spinal rods in spinal fixation system - has clip bodies with one portion which receives first spinal rod, and second portion with transverse bore which receiving second spinal rod where first and second portions are fixed via by locking member**

Patent Assignee: HOWMEDICA OSTEONICS CORP (HOWN); SURGICAL DYNAMICS INC (SURG-N); US SURGICAL CORP (USSU)

Inventor: CHIH-I L; LIN C; NICHOLS D; NICHOLS D A

Patent Family ( 10 patents, 28 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 878170	A2	19981118	EP 1998108437	A	19980508	199850	B

AU 199865961	A	19981119	AU 199865961	A	19980514	199907	E
CA 2237268	A	19981115	CA 2237268	A	19980511	199918	E
JP 11070125	A	19990316	JP 1998172009	A	19980515	199921	E
US 6302882	B1	20011016	US 1997856916	A	19970515	200164	E
			US 2000578637	A	20000525		
AU 748089	B	20020530	AU 199865961	A	19980514	200247	E
US 20030083659	A1	20030501	US 1997856916	A	19970515	200331	E
			US 2002308680	A	20021203		
EP 878170	B1	20030730	EP 1998108437	A	19980508	200356	E
			EP 200324	A	19980508		
DE 69816702	E	20030904	DE 69816702	A	19980508	200366	E
			EP 1998108437	A	19980508		
US 6752807	B2	20040622	US 1997856916	A	19970515	200442	E
			US 2002308680	A	20021203		

Priority Applications (no., kind, date): US 2002308680 A 20021203; US 2000578637 A 20000525; US 1997856916 A 19970515

#### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
EP 878170	A2	EN	14	16		
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CA 2237268	A	EN				
JP 11070125	A	JA	32			
US 6302882	B1	EN			Division of application	US 1997856916
AU 748089	B	EN			Previously issued patent	AU 9865961
US 20030083659	A1	EN			Division of application	US 1997856916
EP 878170	B1	EN			Related to application	EP 200324
					Related to patent	EP 1297792
Regional Designated States,Original	DE ES FR GB IT					
DE 69816702	E	DE			Application	EP 1998108437
					Based on OPI patent	EP 878170
US 6752807	B2	EN			Division of application	US 1997856916

#### Alerting Abstract EP A2

The transverse connector clip for connecting cylindrical rods includes clip bodies with a first side and a second side. The first side of each clip body has a longitudinal axis and a pair of mirror image hemi-cylindrical shells (18,20). The hemi-cylindrical shells each have an inner diameter that is slightly smaller than the outer diameter of the cylindrical spinal rod.

Each clip body is shaped to allow the hemi-cylindrical shells to spread around the cylindrical rod when it is inserted between the hemi-cylindrical shells. The deflection of the hemi-cylindrical shells and the inner shell diameter allow the clip body to securely clamp on the cylindrical **spinal** rod, placing the inserted cylindrical rod at a 90 degree angle relative to the longitudinal axis of each clip body. Each clip body may include a short laterally extending semi-cylindrical rod which engages a similar clip body rod.

USE - For implantable **spinal** fixation systems for surgical treatment of **spinal** disorders.

ADVANTAGE - Can be used to transversely connect **spinal** rods without requiring additional manipulation of the **spinal** instrumentation. Does not require any additional locking mechanism, so reduces the assembly of small pieces of hardware during the surgical procedure.

**Title Terms /Index Terms/Additional Words:** TRANSVERSE; CONNECT; CLIP; INTERCONNECT; TWO ; ELONGATE; **SPINE**; ROD; FIX; SYSTEM; BODY; ONE; PORTION; RECEIVE; FIRST; SECOND; BORE; LOCK; MEMBER

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58; A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000, 606061000, 606061000

File Segment: EngPI; ;

DWPI Class: P31

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24/5/10 (Item 10 from file: 350) [Links](#)

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0013086091 *Drawing available*

WPI Acc no: 2003-166715/200316

Related WPI Acc No: 2002-454210

XRPX Acc No: N2003-131778

**Spinal intervertebral implant insertion tool has guide rod secured to shank and arranged relative to extension portion for providing visual alignment of extension portion relative to disc space orientation**

Patent Assignee: BOYLE J (BOYL-I); GERMAKIS P (GERM-I); MARTZ E (MART-I); OSTEOTECH INC (OSTE-N); SYBERT D (SYBE-I)

Inventor: BOYLE J; GERMAKIS P; MARTZ E; SYBERT D

Patent Number	Kind	Date	Patent Family ( 2 patents, 1 countries)	Kind	Date	Update	Type
			Application Number				

US 20020188295	A1	20021212	US 2000246297	P	20001107	200316	B
			US 200186041	A	20011025		
US 6666866	B2	20031223	US 200186041	A	20011025	200408	E

Priority Applications (no., kind, date): US 2000246297 P 20001107; US 200186041 A 20011025

#### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20020188295	A1	EN	10	14	Related to Provisional	US 2000246297

#### Alerting Abstract US A1

**NOVELTY** - The insertion tool (16) has a guide rod (26) secured to an elongated shank (18) and arranged in predetermined orientation relative to an extension portion (20) for providing visual alignment of the extension portion relative to the disc space orientation during insertion of an implant (15).

**DESCRIPTION** - A threaded portion is extended axially from the implant receiving surface for engagement with a threaded bore. The extension portion is extended in axial direction from one end of the shank and offset from the axis arranged to abut the third side surface of the implant. The extension portion is arranged relative to the implant to preclude rotation of the implant relative to the shank about the axis. The shank includes the implant receiving surface at one end transverse to the central longitudinal axis for abutting the implant first end surface.

**USE** - For insertion of intervertebral fusion implants.

**ADVANTAGE** - Has extension portion that helps maintain implant stable and immobile during insertion. Ensures easy alignment of implant with disc space between two adjacent vertebra.

**DESCRIPTION OF DRAWINGS** - The figure shows the isometric view of the implant insertion tool assembly with a representative implant:

15 Implant

16 Insertion tool

18 Shank

20 Extension portion

26 Guide rod

**Title Terms /Index Terms/Additional Words:** SPINE; INTERVERTEBRAL; IMPLANT; INSERT; TOOL ; GUIDE; ROD; SECURE; SHANK; ARRANGE; RELATIVE; EXTEND; PORTION; VISUAL; ALIGN; DISC; SPACE; ORIENT

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000, 606061000, 623017160

File Segment: EngPI; ;  
DWPI Class: P31

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29/5/7 (Item 7 from file: 350) [Links](#)

Derwent WPIX

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0007923310 *Drawing available*

WPI Acc no: 1997-011136/199701

Related WPI Acc No: 1996-401442; 1997-020281; 1996-424537; 1997-051039; 1997-132227; 1997-064701;  
1998-229670; 1997-178290

XRPX Acc No: N1997-009837

**Extending hook and polyaxial coupling element for attaching posterior lamina portion of spine - has blade portion with curved shaped for cupping lamina having body including shaft portion having pair of upwardly extending members**

Patent Assignee: FASTENETIX LLC (FAST-N)

Inventor: ERRICO J P; ERRICO T J; RALPH J D

Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5575792	A	19961119	US 1995502803	A	19950714	199701	B
			US 1995542529	A	19951013		

Priority Applications (no., kind, date): US 1995502803 A 19950714; US 1995542529 A 19951013

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 5575792	A	EN	15	11	C-I-P of application	US 1995502803

**Alerting Abstract US A**

The device which has a rod receiving body portion of variable length. Selected embodiments include a polyaxial coupling element so that the rod receiving channel thereof may be angulated. In each embodiment, the blade portion has a **cylindrical** recess and the **body** includes a **shaft** portion which is **slidably** mounted in. The top of the cylindrical recess is slotted, threaded, and tapered to receive a tightening nut. The tightening crush locks the **shaft** in the recess.

In a first form, the upper portion of the body includes a channel in which a rod is disposed. The rod is locked within the channel by means of a top locking nut or an optional rod securing sleeve. In a second form, the **shaft** has a semi-spherical head on which a separate coupling element, having a lower and an upper portion, is mounted. The lower portion has a slotted exterior taper and a semi-spherical interior chamber in which the head is initially polyaxially disposed. The upper portion has a channel therein for receiving the rod and a threading for receiving a top locking nut. A locking ring is disposed about the coupling element, at the top, being initially positioned above

the bottom of the channel such that the rod seats against the top of the locking ring.

ADVANTAGE - Provides for elongation of the body portion, so that the receiving portion of the body, may be moved relatively to the hook.

**Title Terms /Index Terms/Additional Words:** EXTEND; HOOK; COUPLE; ELEMENT; ATTACH; POSTERIOR; LAMINA; PORTION; **SPINE**; BLADE; CURVE; SHAPE; CUP; BODY; SHAFT; PAIR; UP; MEMBER

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000, 606072000

File Segment: EngPI; ;

DWPI Class: P31

29/5/9 (Item 9 from file: 350) [Links](#)

Derwent WPIX

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0004102180

WPI Acc no: 1987-207124/198730

XRAM Acc no: C1987-086740

XRPX Acc No: N1987-155022

**Set of surgical instruments - for joining bone fragments by screws with range of plates and composite screw driver**

Patent Assignee: HEINL T (HEIN-I)

Inventor: HEINL T

##### Patent Family ( 7 patents, 12 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 3601715	A	19870723	DE 3601715	A	19860122	198730	B
EP 236698	A	19870916	EP 1987100757	A	19870121	198737	E
US 4903691	A	19900227	US 19875718	A	19870121	199015	E
DE 3645193	A	19901122	DE 3601715	A	19860122	199048	E
			DE 3645193	A	19860122		
EP 236698	B1	19930616	EP 1987100757	A	19870121	199324	E
DE 3786182	G	19930722	DE 3786182	A	19870121	199330	E
			EP 1987100757	A	19870121		
US 4903691	C1	20020430	US 19875718	A	19870121	200248	E



Priority Applications (no., kind, date): DE 3601715 A 19860122; DE 3645193 A 19860122

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
DE 3601715	A	DE	8	6		
EP 236698	A	DE				
Regional Designated States,Original	AT BE CH DE ES FR GB GR IT LI NL SE					
EP 236698	B1	DE	7	1		
Regional Designated States,Original	AT BE CH DE ES FR GB GR IT LI NL SE					
DE 3786182	G	DE			Application	EP 1987100757
					Based on OPI patent	EP 236698

Alerting Abstract DE A

A set of surgical instruments for performing joints of bone fragments by screwed connections, specially in case of skull, face, spline or hand fractures, include a range of L-shaped, X- and zigzag-shaped plates with lines of bores and of suitable screws. The tools include a composite screw driver with a handle, a blade, a **tubular** collet with clamping jaws, and a **sliding** sleeve which is pushed forward to apply the jaws by the plate. The set is preferably made of precious metal, stainless steel or polydioxanon.

ADVANTAGE - This speeds up the work of osteosynthesis.

Title Terms /Index Terms/Additional Words: SET; SURGICAL; INSTRUMENT; JOIN; BONE; FRAGMENT; SCREW; RANGE; PLATE; COMPOSITE; DRIVE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61B-017/58			Main		"Version 7"
A61B-017/58; A61F-005/04; B25B-015/02			Secondary		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/80	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/68	C	I		R	20060101
A61B-0017/88	C	I		R	20060101

US Classification, Issued: 606070000

File Segment: CPI; EngPI.

DWPI Class: A96; P31; P32; P62

Manual Codes (CPI/A-N): A12-V03D

?

Set	Items	Description
S1	1019021	S SPINE? OR SPINAL? OR VERTEBRA? ? OR VERTEBRAL? OR INTERVERTEBRA? OR INTRAVERTEBRA?
S2	1444691	S CANNULA? OR CANULA? OR CYLINDER? OR TUBE? ? OR TUBULAR? OR TUBIFORM? OR (CYLINDRICAL? OR ELOGAT?)(3N)(MEMBER? ? OR ELEMENT? ? OR BODY OR BODIES)
S3	378858	S (AXIAL? OR LONGITUD? OR LONG()AXIS)(3N)(MOVE? OR MOVING? OR MOVAB? OR MOBIL?) OR SLIDE? OR SLIDING? OR SLIDABL? OR TELESCOP?
S4	144324	S (FIXING? OR FIXAT?)(3N)(MEMBER? ? OR ELEMENT? ? OR SEGMENT? ? OR PIECE? ? OR DEVICE? ? OR APPARAT? OR COMPONENT? ?) OR SHAFT? ?
S5	128933	S. PUSHER? OR DRIVER? OR (PUSH??? OR DRIV???) (3N)(ELEMENT? ? OR PIECE? ?)
S6	37751	S S2(3N)(INNER OR INSIDE OR INTERIOR? OR WITHIN)
S7	11708	S S2(3N)(OUTER OR OUTSIDE OR EXTERIOR?)
S8	1	S S1 AND S3 AND S6 AND S7 AND S4:S5
S9	2	S S1 AND S3 AND S6:S7 AND S4:S5
S10	1	S S9 NOT S8
S11	4	S S1 AND S2 AND S3 AND S4:S5
S12	2	S S11 NOT (S8 OR S10)
S13	32098	S (ENGAG? OR ATTACH? OR SECURE? ? OR SECURING OR FASTEN? OR LOCK??? ) (3N)(MEMBER? ? OR ELEMENT? ? OR SEGMENT? ? OR PIECE? ? OR DEVICE? ? OR APPARAT? OR COMPONENT? ?)
S14	4	S S1 AND S2 AND S3 AND S13
S15	4	S S14 NOT (S8 OR S10 OR S12)
S16	3	RD (unique items)
S17	13	S S1 AND S6:S7 AND (S4:S5 OR S13)
S18	7	S S17 NOT (S8 OR S10 OR S12 OR S15)
S19	4	RD (unique items)
S20	31	S S1 AND S6 AND S7
S21	9	S S20/2001:2003
S22	17	S S20/2004:2007
S23	5	S S20 NOT (S8 OR S10 OR S12 OR S15 OR S18 OR S21:S22)
S24	5	RD (unique items)
S25	74	S S1 (S) S2(S)S3
S26	14	S S25/2001:2003
S27	16	S S25/2004:2007
S28	41	S S25 NOT (S8 OR S10 OR S12 OR S15 OR S18 OR S23 OR S26:S27)
S29	30	RD (unique items)

; show files

[File 155] **MEDLINE(R)** 1950-2007/May 04

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[File 5] **Biosis Previews(R)** 1926-2007/Apr W5

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[File 65] **Inside Conferences** 1993-2007/May 04

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12/7/2 (Item 2 from file: 5) [Links](#)

Fulltext available through: [ScienceDirect](#)

Biosis Previews(R)

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16007487 Biosis No.: 200100179326

**Template assembly for facilitating the placement of interbody fusion devices**

**Author:** Boyd Lawrence M (Reprint); Ray Eddie; McGahan Thomas

**Author Address:** Memphis, TN, USA\*\*USA

**Journal:** Official Gazette of the United States Patent and Trademark Office Patents 1237 ( 1 ): Aug. 1, 2000 2000

**Medium:** e-file

**ISSN:** 0098-1133

**Document Type:** Patent

**Record Type:** Abstract

**Language:** English

**Abstract:** A template assembly is provided for marking locations on the disc annulus for the implantation of an interbody fusion device or the introduction of a working instrument. The template assembly includes a **tubular** body sized for percutaneous introduction into a patient and advancement to an affected **intervertebral** disc. An elongated **shaft** slidably extends through the **tubular** body and is threadedly engaged to the handle-mounted thumb wheel so that rotation of the thumb wheel relative to the **tubular** body retracts the **shaft** through the body. A guide foot with a rotatable cam near the distal end of the **tubular** body is operable by the **shaft** and may be pivoted from a first position aligned with the **tubular** body to a second deployed position oriented transversely to the **tubular** body. The guide assembly has an electrocautery projection for marking locations on the disc annulus.

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19/7/3 (Item 1 from file: 5) [Links](#)

Fulltext available through: [ScienceDirect](#)

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0019514053 Biosis No.: 200700173794

**Percutaneous access devices and bone anchor assemblies**

**Author:** Anonymous; Sicvol Christopher W; Lopez Erasmo; Ruberte Ramon

**Author Address:** Boston, MA USA\*\*USA

**Journal:** Official Gazette of the United States Patent and Trademark Office Patents FEB 20 2007 2007

**ISSN:** 0098-1133

**Document Type:** Patent

**Record Type:** Abstract

**Language:** English

**Abstract:** A percutaneous access device includes an **inner tube** and an **outer tube** disposed about at least a portion of the **inner tube**. The **outer tube** may be sized to span from a skin incision in a patient to a site proximate the

**spine** of the patient. The distal end of the **outer tube** may be adapted to releasably engage a bone anchor. The **inner tube** may be adjustable relative to the **outer tube** between a first position and a second position in which the distal end of the **inner tube** contacts the bone anchor. A bone anchor assembly includes a bone anchor having a distal bone engaging portion and a receiving member having a recess for receiving a **spinal fixation element**. The proximal end of the receiving member may have an arcuate groove formed on an exterior surface thereof to facilitate connection of an instrument to the receiving member.

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24/7/1 (Item 1 from file: 5) [Links](#)

Fulltext available through: [ScienceDirect](#)

Biosis Previews(R)

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15569295 **Biosis No.:** 200000287608

**Surgical cutting instrument**

**Author:** Miller Michael E (Reprint)

**Author Address:** Indianapolis, IN, USA\*\*USA

**Journal:** Official Gazette of the United States Patent and Trademark Office Patents 1229 ( 1 ): Dec. 7, 1999 1999

**Medium:** e-file

**ISSN:** 0098-1133

**Document Type:** Patent

**Record Type:** Abstract

**Language:** English

**Abstract:** A surgical cutting instrument for cutting joint tissue includes an **outer tubular** member, or **cannula**, sized for percutaneous insertion into an anatomical space, such as a joint space in the **spine**. The **outer tubular** member has a cutting opening at its blunt-tipped distal end. The proximal end is supported by a handpiece. A cutting member is slidably disposed **within** the **outer tubular** member and includes a tubular cutting head portion defining an end opening and a cutting edge at the end opening. In the specific embodiment, the cutting member is a tubular member having a cutting head portion at its distal end and a body portion extending therefrom to the handpiece. A hinge is integrally formed in the tubular cannula to connect the cutting head portion with said body portion, to permit pivoting of the cutting head portion relative to the body portion. As the cutting member is reciprocated **within** the **outer cannula**, the cutting edge contacts tissue drawn into the cutting opening. Resistance from the tissue causes the cutting head to pivot about the hinge to form an essentially zero clearance between the cutting head and the cutting opening in the **outer cannula**.

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Set	Items	Description
S1	111027	S SPINE? OR SPINAL? OR VERTEBRA? ? OR VERTEBRAL? OR INTERVERTEBRA? OR INTRAVERTEBRA?
S2	477674	S CANNULA? OR CANULA? OR CYLINDER? OR TUBE? ? OR TUBULAR? OR TUBIFORM?
S3	390961	S (AXIAL? OR LONGITUD? OR LONG()AXIS)(3N)(MOVE? OR MOVING? OR MOVAB? OR MOBIL?) OR SLIDE? OR SLIDING? OR SLIDABL? OR TELESCOP?
S4	82255	S (FIXING? OR FIXAT?)(3N)(MEMBER? ? OR ELEMENT? ? OR SEGMENT? ? OR PIECE? ? OR DEVICE? ? OR APPARAT? OR COMPONENT? ?) OR SHAFT? ?
S5	814460	S PUSHER? OR DRIVER? OR (PUSH??? OR DRIV???) (3N)(ELEMENT? ? OR MEMBER? ? OR PIECE? ?)
S6	22022	S S2(3N)(INNER OR INSIDE OR INTERIOR? OR WITHIN)
S7	3286	S S2(3N)(OUTER OR OUTSIDE OR EXTERIOR?)
S8	0	S S1(S)S3(S)S4:S5(S)S6:S7
S9	1	S S1(S)S4:S5(S)S6:S7
S10	7	S S1(S)S3(S)S6:S7
S11	7	S S10 NOT S9
S12	5	RD (unique items)
S13	0	S S1(S)S2(S)S3(S)S4:S5
S14	25	S S1(S)S2(S)S4:S5
S15	6	S S14/2001:2003
S16	8	S S14/2004:2007
S17	11	S S14 NOT (S9 OR S11 OR S15:S16)
S18	7	RD (unique items)
S19	26	S S1(S)S2(S)S3
S20	7	S S19/2001:2003
S21	12	S S19/2004:2007
S22	4	S S19 NOT (S9 OR S11 OR S17 OR S20:S21)
S23	4	RD (unique items)

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full-text  
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[File 9] **Business & Industry(R)** Jul/1994-2007/May 04

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[File 16] **Gale Group PROMT(R)** 1990-2007/May 04

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[File 148] **Gale Group Trade & Industry DB** 1976-2007/May 04

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[File 441] **ESPICOM Pharm&Med DEVICE NEWS** 2007/Oct W4

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[File 149] **TGG Health&Wellness DB(SM)** 1976-2007/Apr W5

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[File 635] **Business Dateline(R)** 1985-2007/May 05

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[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/May 04

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## DEVICE FOR SPINE OPERATION UNDER ARTHROSCOPE AND SPINE OPERATION METHOD USING SAID DEVICE

Publication number: JP6296620

Publication date: 1994-10-25

Inventor: DEIBITSUDO II SHIYAPIRO

Applicant: SMITH & NEPHEW RICHARDS INC

Classification:

- international: **A61B17/56; A61B17/32; A61B17/34; A61F2/30; A61F2/46; A61B17/00; A61B17/28; A61F2/36; A61B17/56; A61B17/32; A61B17/34; A61F2/30; A61F2/46; A61B17/00; A61B17/28; A61F2/36; (IPC1-7): A61B17/56; A61F2/30; A61F2/46**

- European: A61B17/32E8; A61B17/34G4

Application number: JP19940038480 19940309

Priority number(s): US19930028244 19930309

Also published as:



EP0614647 (A2)

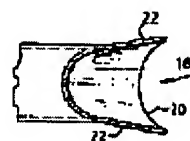
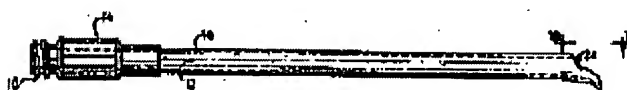
US5439464 (A1)

EP0614647 (A3)

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### Abstract of JP6296620

**PURPOSE:** To provide access to predetermined areas of the spinal column for an arthroscope and a device for performing desired surgical procedure by comprising an inner passageway for instruments and a tissue manipulating surface on its end, arranging a cannula insatiable in the area adjacent the patient's spinal column and extending the tissue manipulating surface outwardly in the radius direction from the cannula. **CONSTITUTION:** A cannula 10 has an inner cannular passageway 12 for inserting an endoscope and the fluid necessary for the correct use thereof, an end 16 enlarged necessarily for inserting a viewing device and an acuminate end 16. A cutting end 20 of an inner end 18 extends outwardly in the radius direction on the opposite side of the cannula 10 and to the cannula from the end 20, and has a wall 22 for raising the strength and accuracy of the distal end and the cutting end. The cutting end 20 curves around the cannula 10 along the outer surface of the end streaming smoothly from the body to the cutting end 20. The wall 22 positioned at an end of the cannula has an opening partially linked to the passageway 12.



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Set	Items	Description
S1	78	S AU=(GRAY E? OR GRAY, E?)
S2	7	S AU=(BOSCHERT P? OR BOSCHERT, P?)
S3	2	S S1 AND S2
S4	2	S S1:S2 AND (SPINE? OR SPINAL? OR VERTEBRA?) AND (CANNULA? OR CANULA? OR TUBE? ? OR TUBULAR? OR TUBIFORM?)
S5	0	S S4 NOT S3

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[File 350] **Derwent WPIX** 1963-2007/UD=200729

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[File 347] **JAPIO** Dec 1976-2006/Dec(Updated 070403)

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3/5/1 (Item 1 from file: 350) [Links](#)

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0015094733 *Drawing available*

WPI Acc no: 2005-444201/200545

Related WPI Acc No: 2004-417375

XRPX Acc No: N2005-360964

**Temporary spinal fixation apparatus for positioning spinal implant has fixing piece set within lumen of inner cannula and includes securing arrangement with threads for advancing and retracting fixing piece within same inner lumen**

Patent Assignee: SULZER SPINE-TECH LTD (SULZ)

Inventor: BOSCHERT P F; GRAY E L

Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050137593	A1	20050623	US 2000676622	A	20001002	200545	B
			US 2004821617	A	20040409		

Priority Applications (no., kind, date): US 2000676622 A 20001002; US 2004821617 A 20040409

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050137593	A1	EN	15	11	Continuation of application	US 2000676622
					Continuation of patent	US 6743231

**Alerting Abstract US A1**

**NOVELTY** - An inner cannula (40) is axially movable within the outer lumen (21) of the outer cannula (20). A fixing piece (60) is positioned within the inner lumen of the inner cannula and includes a securing arrangement (70) with threads (61) for advancing and retracting the fixing piece within the same inner lumen.

**USE** - For temporary fixation of the spinal implant assemblies until a permanent fixation position is determined.

**ADVANTAGE** - Reduces the number of steps needed to perform spinal surgery and can decrease the likelihood of post-operative complications.

**DESCRIPTION OF DRAWINGS** - The figure shows an exploded perspective view of the low profile version of the temporary fixation device.

20 Outer cannula

21 Outer lumen

40 Inner cannula

60 Fixing piece

61 Threads

70 Securing arrangement

**Title Terms /Index Terms/Additional Words:** TEMPORARY; SPINE; FIX; APPARATUS; POSITION; IMPLANT;

PIECE; SET; LUMEN; INNER; CANNULA; SECURE; ARRANGE; THREAD; ADVANCE; RETRACT

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

US Classification, Issued: 606061000

File Segment: EngPI; ;

DWPI Class: P31

3/5/2 (Item 2 from file: 350) [Links](#)

Derwent WPIX

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0014231441 *Drawing available*

WPI Acc no: 2004-417375/200439

Related WPI Acc No: 2005-444201

XRPX Acc No: N2004-331025

**Stabilization method for spinal column, involves fixing stabilizing rod in position by passing fixing member of temporary fixation device through portion of bone implant and by using rod securing device**

Patent Assignee: SULZER SPINE-TECH LTD (SULZ)

Inventor: BOSCHERT P F; GRAY E L

##### Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6743231	B1	20040601	US 2000676622	A	20001002	200439	B

Priority Applications (no., kind, date): US 2000676622 A 20001002

##### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 6743231	B1	EN	15	11	

#### Alerting Abstract US B1

NOVELTY - The method involves fixing a stabilizing rod (102) in position by passing the fixing member (60) of a temporary fixation device (10) through a portion of a bone implant (101) and by using a rod securing device. The temporary fixation apparatus is mounted to the bone implant after applying the rod securing device to the bone implant.

USE - Used for stabilizing the spinal column.

ADVANTAGE - Enhances the ease of performing positional corrections, reduces surgical time and preserves the integrity of the implanted system to reduce the likelihood of post-operative complications.

DESCRIPTION OF DRAWINGS - The figure shows the perspective view of the temporary fixation device.

10 Temporary fixation device

40 Inner cannula

60 Fixing member

101 Bone implant

102 Stabilizing rod

**Title Terms /Index Terms/Additional Words:** STABILISED; METHOD; SPINE; COLUMN; FIX; ROD; POSITION; PASS; MEMBER; TEMPORARY; DEVICE; THROUGH; PORTION; BONE; IMPLANT; SECURE

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000

File Segment: EngPI; ;

DWPI Class: P31

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Set	Items	Description
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S2	2	S AU=(BOSCHERT P? OR BOSCHERT, P?)
S3	0	S S1 AND S2
S4	6	S S1:S2 AND (SPINE? OR SPINAL? OR VERTEBRA?) AND (CANNULA? OR CANULA? OR TUBE? ? OR TUBULAR? OR TUBIFORM?)
S5	6	RD (unique items)

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